

1 **In the Claims**

2 Claims 1-9, 11-17 and 19-41 are amended.

3 Claims 1-41 remain in the application and are listed below as follows:

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5 1. (Currently Amended) A software architecture for a distributed
6 computing system comprising:

7 an application configured to handle requests submitted by remote devices
8 over a network; [[and]]

9 an application program interface to present functions used by the
10 application to access network and computing resources of the distributed
11 computing system; and

12 a common language runtime layer that can translate Web applications
13 written in different languages into an intermediate language supported by the
14 common runtime layer.

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16 2. (Currently Amended) A The software architecture as recited in claim
17 1, wherein the distributed computing system comprises client devices and server
18 devices that handle requests from the client devices, the remote devices
19 comprising at least one client device.

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21 3. (Currently Amended) A The software architecture as recited in claim
22 1, wherein the distributed computing system comprises client devices and server
23 devices that handle requests from the client devices, the remote devices
24 comprising at least one server device that is configured as a Web server.
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1 4. (Currently Amended) A The software architecture as recited in claim
2 1, wherein the application program interface comprises:

- 3 a first group of services related to creating Web applications;
4 a second group of services related to constructing client applications;
5 a third group of services related to data and handling XML documents; and
6 a fourth group of services related to base class libraries.

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8 5. (Currently Amended) An application program interface embodied on
9 one or more computer readable media, comprising:

- 10 a first group of services related to creating Web applications;
11 a second group of services related to constructing client applications;
12 a third group of services related to data and handling XML documents; and
13 a fourth group of services related to base class libraries; and further
14 comprising:

15 a common language runtime layer that can translate Web
16 applications written in different languages into an intermediate language
17 supported by the common runtime layer.

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19 6. (Currently Amended) A The application program interface as recited
20 in claim 5, wherein the first group of services comprises:

- 21 first functions that enable construction and use of Web services;
22 second functions that enable temporary caching of frequently used
23 resources;
24 third functions that enable initial configuration;
25 fourth functions that enable creation of controls and Web pages;

1 fifth functions that enable security in Web server applications; and

2 sixth functions that enable access to session state values.

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4 7. (Currently Amended) ~~A~~ The application program interface as recited
5 in claim 5, wherein the second group of services comprises:

6 first functions that enable creation of windowing graphical user interface
7 environments; and

8 second functions that enable graphical functionality.

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10 8. (Currently Amended) ~~A~~ The application program interface as recited
11 in claim 5, wherein the third group of services comprises:

12 first functions that enable management of data from multiple data sources;
13 and

14 second functions that enable XML processing.

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16 9. (Currently Amended) ~~A~~ The application program interface as recited
17 in claim 5, wherein the fourth group of services comprises:

18 first functions that enable definitions of various collections of objects;

19 second functions that enable programmatic access to configuration settings
20 and handling of errors in configuration files;

21 third functions that enable application debugging and code execution
22 tracing;

23 fourth functions that enable customization of data according to cultural
24 related information;

25 fifth functions that enable input/output of data;

sixth functions that enable a programming interface to network protocols;
seventh functions that enable a managed view of types, methods, and fields;
eighth functions that enable creation, storage and management of various
culture-specific resources;
ninth functions that enable system security and permissions;
tenth functions that enable installation and running of services;
eleventh functions that enable character encoding;
twelfth functions that enable multi-threaded programming; and
thirteenth functions that facilitate runtime operations.

10. (Original) A network software architecture comprising the
application program interface as recited in claim 5.

11. (Currently Amended) A distributed computer software architecture,
comprising:

one or more applications configured to be executed on one or more
computing devices, the one or more applications handling requests submitted from
remote computing devices;

a networking platform to support the one or more applications; [[and]]

an application programming interface to interface the one or more
applications with the networking platform; and

a common language runtime layer that can translate Web applications
written in different languages into an intermediate language supported by the
common runtime layer.

12. (Currently Amended) A The distributed computer software architecture as recited in claim 11, further comprising a remote application configured to be executed on one of the remote computing devices, the remote application using the application programming interface to access the networking platform.

13. (Currently Amended) A The distributed computer software architecture as recited in claim 11, wherein the application programming interface comprises:

- a first group of services related to creating Web applications;
- a second group of services related to constructing client applications;
- a third group of services related to data and handling XML documents; and
- a fourth group of services related to base class libraries.

14. (Currently Amended) A The distributed computer software architecture as recited in claim 11, wherein the application programming interface exposes multiple functions comprising:

- first functions that enable construction and use of Web services;
- second functions that enable temporary caching of frequently used resources;
- third functions that enable initial configuration;
- fourth functions that enable creation of controls and Web pages;
- fifth functions that enable security in Web server applications; and
- sixth functions that enable access to session state values.

15. (Currently Amended) A The distributed computer software architecture as recited in claim 11, wherein the application programming interface exposes multiple functions comprising:

first functions that enable creation of windowing graphical user interface environments; and

second functions that enable graphical functionality.

16. (Currently Amended) A The distributed computer software architecture as recited in claim 11, wherein the application programming interface exposes multiple functions comprising:

first functions that enable management of data from multiple data sources; and

second functions that enable XML processing.

17. (Currently Amended) A The distributed computer software architecture as recited in claim 11, wherein the application programming interface exposes multiple functions comprising:

first functions that enable definitions of various collections of objects;

second functions that enable programmatic access to configuration settings and handling of errors in configuration files;

third functions that enable application debugging and code execution tracing;

fourth functions that enable customization of data according to cultural related information;

fifth functions that enable input/output of data;

sixth functions that enable a programming interface to network protocols;
seventh functions that enable a managed view of loaded types, methods,
and fields;
eighth functions that enable creation, storage and management of various
culture-specific resources;
ninth functions that enable system security and permissions;
tenth functions that enable installation and running of services;
eleventh functions that enable character encoding;
twelfth functions that enable multi-threaded programming; and
thirteenth functions that facilitate runtime operations.

18. (Original) A computer system including one or more microprocessors and one or more software programs, the one or more software programs utilizing an application program interface to request services from an operating system, the application program interface including separate commands to request services consisting of the following groups of services:

A. a first group of services related to creating Web applications:

constructing Web services;
temporary caching resources;
performing initial configuration;
creating controls and Web pages;
enabling security in Web server applications;
accessing session state values;

B. a second group of services related to constructing client applications:

creating windowing graphical user interface environments;

1 enabling graphical functionality;

2 C. a third group of services related to data and handling XML documents:

3 enabling management of data from multiple data sources;

4 second functions that enable XML processing.

5 D. a fourth group of services related to base class libraries:

6 defining various collections of objects;

7 accessing configuration settings and handling errors in configuration files;

8 debugging and tracing code execution;

9 customizing data according to cultural related information;

10 inputting and outputting of data;

11 enabling a programming interface to network protocols;

12 viewing loaded types, methods, and fields;

13 creating, storing and managing various culture-specific resources;

14 enabling system security and permissions;

15 installing and running services;

16 enabling character encoding;

17 enabling multi-threaded programming; and

18 facilitating runtime operations.

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20 19. (Currently Amended) A system comprising:

21 means for exposing a first set of functions that enable browser/server
22 communication;

23 means for exposing a second set of functions that enable drawing and
24 construction of client applications;

1 means for exposing a third set of functions that enable connectivity to data
2 sources and XML functionality; and

3 means for exposing a fourth set of functions that enable system and runtime
4 functionality; and

5 means for translating Web applications written in different languages into
6 an intermediate language supported by a common runtime layer.

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8 20. (Currently Amended) A The system as recited in claim 19, wherein
9 the first set of functions comprises:

10 first functions that enable construction and use of Web services;

11 second functions that enable temporary caching of frequently used
12 resources;

13 third functions that enable initial configuration;

14 fourth functions that enable creation of controls and Web pages;

15 fifth functions that enable security in Web server applications; and

16 sixth functions that enable access to session state values.

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18 21. (Currently Amended) A The system as recited in claim 19, wherein
19 the second set of functions comprises:

20 first functions that enable creation of windowing graphical user interface
21 environments; and

22 second functions that enable graphical functionality.

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24 22. (Currently Amended) A The system as recited in claim 19, wherein
25 the third set of functions comprises:

1 first functions that enable management of data from multiple data sources;
2 and
3 second functions that enable XML processing.

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5 23. (Currently Amended) A The system as recited in claim 19, wherein
6 the fourth set of functions comprises:

7 first functions that enable definitions of various collections of objects;
8 second functions that enable programmatic access to configuration settings
9 and handling of errors in configuration files;

10 third functions that enable application debugging and code execution
11 tracing;

12 fourth functions that enable customization of data according to cultural
13 related information;

14 fifth functions that enable input/output of data;

15 sixth functions that enable a programming interface to network protocols;

16 seventh functions that enable a managed view of loaded types, methods,
17 and fields;

18 eighth functions that enable creation, storage and management of various
19 culture-specific resources;

20 ninth functions that enable system security and permissions;

21 tenth functions that enable installation and running of services;

22 eleventh functions that enable character encoding;

23 twelfth functions that enable multi-threaded programming; and

24 thirteenth functions that facilitate runtime operations.
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1 24. (Currently Amended) A method implemented at least in part by a
2 computer, comprising:

3 managing network and computing resources for a distributed computing
4 system; [[and]]

5 exposing a set of functions that enable developers to access the network and
6 computing resources of the distributed computing system, the set of functions
7 comprising first functions to facilitate browser/server communication, second
8 functions to facilitate construction of client applications, third functions to
9 facilitate connectivity to data sources and XML functionality, and fourth functions
10 to access system and runtime resources; and

11 providing a common language runtime layer that can translate Web
12 applications written in different languages into an intermediate language supported
13 by the common runtime layer.

14
15 25. (Currently Amended) ~~A~~ The method as recited in claim 24, further
16 comprising receiving a request from a remote computing device, the request
17 containing a call to at least one of the first, second, third, and fourth functions.

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19 26. (Currently Amended) A method implemented at least in part by a
20 computer, comprising:

21 creating a first namespace with functions that enable browser/server
22 communication;

23 creating a second namespace with functions that enable drawing and
24 construction of client applications;
25

1 creating a third namespace with functions that enable connectivity to data
2 sources and XML functionality; [[and]]

3 creating a fourth namespace with functions that enable system and runtime
4 functionality; and

5 providing a common language runtime layer that can translate Web
6 applications written in different languages into an intermediate language supported
7 by the common runtime layer.

8
9 27. (Currently Amended) A The method as recited in claim 26, wherein
10 the first namespace defines classes that facilitate:

11 construction and use of Web services;
12 temporary caching of resources;
13 initial configuration;
14 creation of controls and Web pages;
15 security in Web server applications; and
16 access to session state values.

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18 28. (Currently Amended) A The method as recited in claim 26, wherein
19 the second namespace defines classes that facilitate:

20 creation of windowing graphical user interface environments; and
21 graphical functionality.

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23 29. (Currently Amended) A The method as recited in claim 26, wherein
24 the third namespace defines classes that facilitate:

25 management of data from multiple data sources; and

1 processing of XML documents.

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3 30. (Currently Amended) A The method as recited in claim 26, wherein
4 the fourth namespace defines classes that facilitate:

5 programmatic access to configuration settings and handling of errors in
6 configuration files;

7 application debugging and code execution tracing;

8 customization of data according to cultural related information;

9 inputting and outputting of data;

10 interfacing to network protocols;

11 viewing loaded types, methods, and fields;

12 creation, storage and management of various culture-specific resources;

13 system security and permissions;

14 installation and running of services;

15 character encoding;

16 multi-threaded programming; and

17 runtime operations.

18
19 31. (Currently Amended) A method implemented at least in part by a
20 computer, comprising:

21 calling one or more first functions to facilitate browser/server
22 communication;

23 calling one or more second functions to facilitate construction of client
24 applications;

1 calling one or more third functions to facilitate connectivity to data sources
2 and XML functionality; [[and]]

3 calling one or more fourth functions to access system and runtime
4 resources; and

5 using a common language runtime layer that can translate Web applications
6 written in different languages into an intermediate language supported by the
7 common runtime layer.

8
9 32. (Currently Amended) A The method as recited in claim [[36]] 31,
10 wherein the first functions comprise functions for construction and use of Web
11 services, temporary caching of resources, initial configuration, creation of controls
12 and pages that will appear as user interfaces, securing Web server applications,
13 and accessing session state values.

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15 33. (Currently Amended) A The method as recited in claim [[36]] 31,
16 wherein the second functions comprise functions for creation of windowing
17 graphical user interface environments, and graphical functionality.

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19 34. (Currently Amended) A The method as recited in claim [[36]] 31,
20 wherein the third functions comprise functions for management of data from
21 multiple data sources, and XML processing.

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23 35. (Currently Amended) A The method as recited in claim [[36]] 31,
24 wherein the fourth functions comprise functions for programmatic access to
25 configuration settings, application debugging and code execution tracing,

1 customization of text according to cultural related information, synchronous and
2 asynchronous reading from and writing to data streams and files, creation and
3 management of various culture-specific resources, system security and
4 permissions, installation and running of services, character encoding, and multi-
5 threaded programming.

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7 36. (Currently Amended) A method implemented at least in part by a
8 computer, comprising:

9 receiving one or more calls to one or more first functions to facilitate
10 browser/server communication;

11 receiving one or more calls to one or more second functions to facilitate
12 construction of client applications;

13 receiving one or more calls to one or more third functions to facilitate
14 connectivity to data sources and XML functionality; [[and]]

15 receiving one or more calls to one or more fourth functions to access
16 system and runtime resources; and

17 using a common language runtime layer that can translate Web applications
18 written in different languages into an intermediate language supported by the
19 common runtime layer.

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21 37. (Currently Amended) A The method as recited in claim [[31]] 36,
22 wherein the first functions comprise functions for construction and use of Web
23 services, temporary caching of resources, initial configuration, creation of controls
24 and pages that will appear as user interfaces, securing Web server applications,
25 and accessing session state values.

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2 38. (Currently Amended) A The method as recited in claim [[31]] 36,
3 wherein the second functions comprise functions for creation of windowing
4 graphical user interface environments, and graphical functionality.

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6 39. (Currently Amended) A The method as recited in claim [[31]] 36,
7 wherein the third functions comprise functions for management of data from
8 multiple data sources, and XML processing.

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10 40. (Currently Amended) A The method as recited in claim [[31]] 36,
11 wherein the fourth functions comprise functions for programmatic access to
12 configuration settings, application debugging and code execution tracing,
13 customization of text according to cultural related information, synchronous and
14 asynchronous reading from and writing to data streams and files, creation and
15 management of various culture-specific resources, system security and
16 permissions, installation and running of services, character encoding, and multi-
17 threaded programming.

18
19 41. (Currently Amended) A method implemented at least in part by a
20 computer, for exposing resources using an application program interface,
21 comprising:

22 A. exposing a first group of services related to creating Web applications,
23 including:

24 constructing Web services;

25 temporary caching resources;

1 performing initial configuration;
2 creating controls and Web pages;
3 enabling security in Web server applications;
4 accessing session state values;

5 B. exposing a second group of services related to constructing client
6 applications, including:

7 creating windowing graphical user interface environments;
8 enabling graphical functionality;

9 C. exposing a third group of services related to data and handling XML
10 documents, including:

11 enabling management of data from multiple data sources;
12 second functions that enable XML processing.

13 D. exposing a fourth group of services related to base class libraries,
14 including:

15 defining various collections of objects;
16 accessing configuration settings and handling errors in configuration files;
17 debugging and tracing code execution;
18 customizing data according to cultural related information;
19 inputting and outputting of data;
20 enabling a programming interface to network protocols;
21 viewing loaded types, methods, and fields;
22 creating, storing and managing various culture-specific resources;
23 enabling system security and permissions;
24 installing and running services;
25 enabling character encoding;

1 enabling multi-threaded programming; and
2 facilitating runtime operations.
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